



Dennis DesRosiers

## Secret to Success - Product, Product, Product

As an analyst whose formal education involved nary a single visit to the faculty of engineering, I understand that talk of vehicle platforms can be somewhat obtuse. Cutting through PR department spin has always been a challenge, especially when the subject of that spin is platform newness. How many redesigned models are actually all-new? Does an average vehicle buyer know (or care) that the supposedly new car or truck they are considering is in-fact based on a platform many years older than those underpinning competitors' models? Does the freshness of a manufacturer's lineup have any bearing on that lineup's competitiveness or

market success? When an OEM proclaims they have a new vehicle introduction every month for years to come, do they really have that many new products in the pipeline?

We try to discuss the issues related to platform aging every year. Along with fleet sales, sales incentives, heavy reliance on leasing, and dealer downloading, extended platform runs are a popular "safety valve" used by automakers to weather tough times and ensure profitability in difficult market conditions. They do this because an "all new" platform costs upwards of \$3 to \$5 billion to

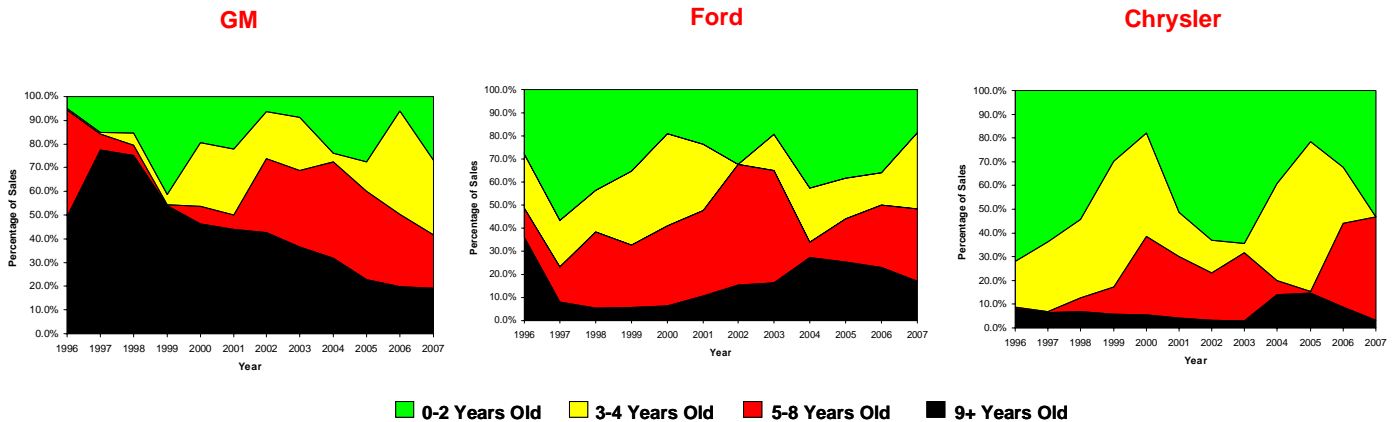
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### Passenger Car and Light Truck Sales by Platform Age - Sales Weighted

	New & Exciting 0 - 2 Years	Tried & True 3 - 4 Years	Long in the Tooth 5 - 8 Years	War Horses 9+ Years	Total Light Vehicle Sales
1989	31.0%	13.4%	40.7%	15.0%	1,440,293
1990	30.3%	15.2%	18.6%	35.9%	1,284,783
1991	21.0%	25.1%	17.7%	36.2%	1,265,831
1992	19.5%	23.7%	17.5%	39.2%	1,203,879
1993	24.6%	13.0%	24.8%	37.6%	1,164,240
1994	24.7%	11.7%	24.2%	39.4%	1,224,461
1995	28.7%	16.6%	18.3%	36.4%	1,129,639
1996	34.1%	15.3%	24.3%	26.4%	1,172,389
1997	42.7%	15.6%	13.1%	28.6%	1,387,625
1998	38.6%	19.0%	16.4%	26.0%	1,388,823
1999	40.1%	29.2%	12.0%	18.8%	1,553,713
2000	27.4%	33.5%	22.5%	16.6%	1,549,167
2001	35.7%	26.9%	20.7%	16.7%	1,570,499
2002	33.8%	21.1%	28.4%	16.7%	1,702,606
2003	32.2%	22.6%	31.5%	13.8%	1,592,790
2004	33.1%	27.5%	22.4%	17.0%	1,533,811
2005	31.0%	29.5%	26.2%	13.3%	1,582,905
2006	35.0%	25.6%	29.2%	10.2%	1,614,891
2007	44.1%	23.0%	24.3%	8.6%	1,653,388

Source: DesRosiers Automotive Consultants Inc., AIAMC, CVMA, and CSM Worldwide

## Age of Vehicle Platforms 1996 - 2007 Percentage of Sales by Platform Age



Source: DesRosiers Automotive Consultants Inc., AIAMC and CVMA

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bring to market. If cash preservation is required, then an OEM holds back on new products to save precious resources. Unfortunately for those OEMs choosing to exercise this option, we believe that platform stagnation - like other safety valves - ultimately diminishes brand equity and underserves everyone in the value chain associated with the product. Most OEMs get into trouble because of product issues, so we find it curious that, when in trouble, one of the first steps they take is to extend the service lives of existing platforms, worsening the trouble.

Before we delve into the results of this year's platform age review, it is necessary to briefly outline the basics of vehicle platforms. The term "platform" refers to a vehicle's fundamental chassis engineering - structural hard points, proportional relationships, stress-bearing

joints and all the other important frame-related points forming the core of a modern unit-body configuration. Many prefer to use the term in a more amorphous sense to refer to a broader slew of vehicle attributes, usually including some combination of engine, transmission, suspension setup, and chassis configuration shared by several models.

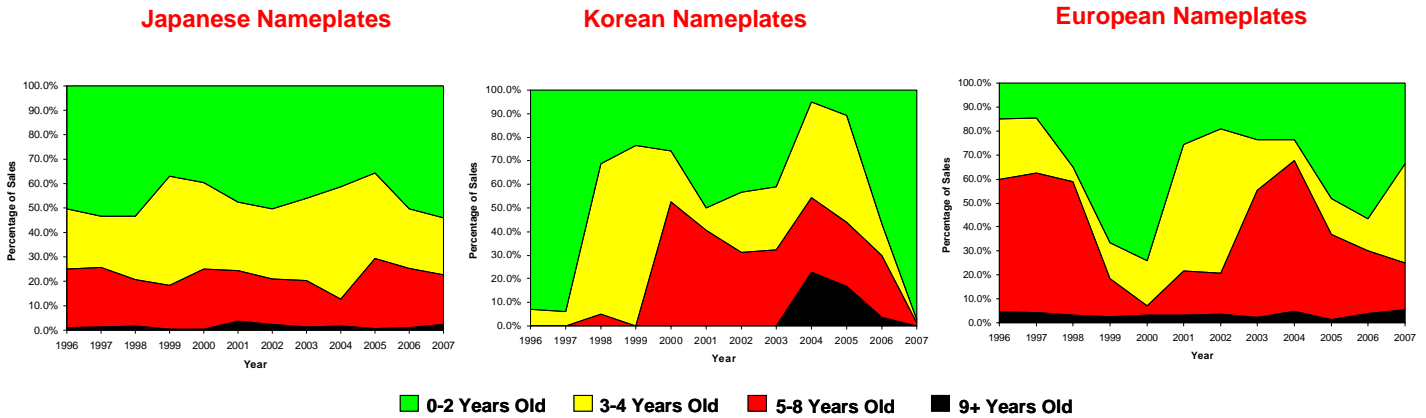
Every year, we update our platform age model with the previous year's sales results and model age data. Every vehicle is placed in one of the following four categories: Zero to two years old ("New & Exciting"); three to four years old ("Tried & True"); five to eight years old ("Long in the Tooth"); and nine-plus years old ("War Horses"). Each manufacturer's lineup is then sales weighted. In this way, we can use the platform age model as an indicator of corporate health. Profitable, forward-thinking OEMs are able

to reduce the percentage of older products in their lineups, while struggling companies are forced to meet a certain portion of their customers' needs with older, less competitive offerings.

It seems as though the pace of product innovation is simultaneously intensifying and stagnating. For several product cycles, top ranked vehicles have upheld consistent brand virtues and delivered a suitably modern, satisfying experience. An average driver stepping from a 1995 BMW 740i to a 2005 745i would notice a difference, but it would be far subtler than the difference between that same 1995 7-Series and its 1985 735i counterpart. The 2008 (soon 2009) model vehicles currently available to consumers are the most advanced vehicles ever mass-produced, but it seems as though improvements in the 'experience' of driving are not as

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Source: DesRosiers Automotive Consultants Inc., AIAMC and CVMA

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forthcoming as in previous decades.

At the same time, we are told that these cars - the ones which seem a little better but not so much better than those we were driving ten years ago - are fundamentally different from their predecessors. Frames are stiffer, engines cleaner and more precisely regulated, transmissions more efficient and suspensions more capable and compliant. This sort of platform renewal is being demanded by consumers, journalists, management, and the hyper-competitive market environment in general. GM, Ford and Chrysler have trumpeted their efforts to minimize development time, bringing their platform cycles in-line with those of the Japanese. At the same time, many Japanese manufacturers have shifted from short to medium-length product cycles in order to accommodate expanding lineups, essentially

narrowing the temporal gaps between various global players.

High volume vehicles are now on 5 to 6 year product cycles in the North American market. During the time that any platform is for sale, it must recoup its development costs and turn a profit before growing too old to compete effectively. Additionally, given the expensive regulatory hurdles every new vehicle must vault, most new platforms must be engineered with an eye - nay, two eyes - cast towards the multitude of possible offspring that a single design can yield. For example, a single global small car platform - Ford's CD1 structure - has spawned compact sedans (Mazda3, European market Ford Focus), small vans and tall wagons (Mazda5, Ford Focus C-Max), small luxury vehicles (Volvo S40, V50), sporty convertibles (Volvo C70), and small SUVs (upcoming European

market Ford Kuga). Of course, remember that it costs \$3 to \$5 billion to develop a new platform, so OEMs need this many shared products to recoup their investments.

Platforms are often described as "shared" when the vehicles they underpin are only tangentially related, such as Nissan's Altima and Murano. It takes a good deal of discretion (and a healthy dose of PR skepticism) to determine which vehicles are siblings, cousins, or strangers. We have always thought that the most important elements in establishing shared origins are those related to the basic engineering structure such as the floorpan, suspension geometry, and crash protection structure.

As we have said many times in the past, success (and failure) revolves around three words - product, product, product. Good design - both on the surface and

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under the hood - is a major determining factor in many purchase decisions and cannot be overlooked in such a deeply emotional, competitive market. Manufacturers with products appropriate to the times win the day. This statement has been proven true once again as import nameplate OEMs continue to erode market share from the Detroit-based automakers. Although the GM, Ford and Chrysler have made considerable and somewhat successful strides toward eliminating their aging products and replacing them with new and exciting models, they are still a few steps - and a few years - behind the Japanese nameplates.

In 2007, 54.0 percent of all Japanese nameplate vehicles sold in Canada had zero to two year old engineering. GM, Ford and Chrysler together increased their internal "New & Exciting" mix to 42.6 percent (it tracked in the mid-20 percent range as recently as 2003), but they still rely heavily on older products. Total nine-plus year old sales volume from the Detroit-based manufacturers was pegged at 19.2 percent in 2007. While this number seems high compared to counterpart numbers from Japanese (2.4%) or European (5.5%) manufacturers, it represents a considerable achievement for GM, Ford and Chrysler. At no other point during our eighteen year time series has it been lower.

Of particular note were GM and Chrysler. Both of these companies managed to reduce their dependence on outdated engineering and sharply increase their "New & Exciting" mix in 2007. GM still sells a considerable volume of old platform vehicles, but we believe that current trends will hold and GM will continue to excise dead weight from its showrooms.

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Korean nameplate manufacturers saw a dramatic platform shift in 2007, with nearly 100 percent of their sales falling into the "New & Exciting" age category. This is a direct reflection of the increased desirability, prominence, and profitability of Korean products in the Canadian marketplace. As such, the Koreans are extremely well positioned from a product perspective to compete more effectively against Detroit-based, Japanese, and selected European brands.

European nameplate manufacturers typically allow for longer product cycles than their Japanese counterparts, often running popular models for seven to eight years between redesigns. Due to these longer

cycles - and to the fact that many high-volume European cars coincidentally reached the middles of their respective cycles in 2007 - a significant amount of middle-aged segment growth took place last year among European nameplate manufacturers.

When we began analyzing platform age statistics in 2004, it was noted that Canadians were not responding to OEM product offensives. Average consumers were instead choosing value over novelty, preferring to purchase vehicles based on three to eight year old platforms. In 2007, however, new platforms have captured the imaginations (and dollars) of vehicle buyers. A full 44.1 percent of the vehicles purchased by Canadians last year were based on zero to two year old platforms. This represents another record, as it is the highest proportion of new platforms ever sold in our study's 18 year time series.

Clearly, Canadians have become more discriminating vehicle buyers. With consumer-driven marketplace competitiveness at an 18 year high, OEMs will need to be vigilant in weeding stale product from their showrooms.

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